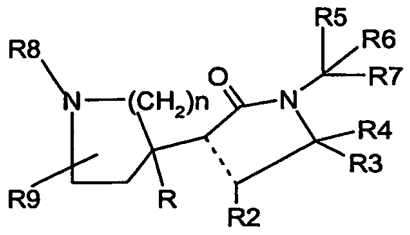
CLAIMS

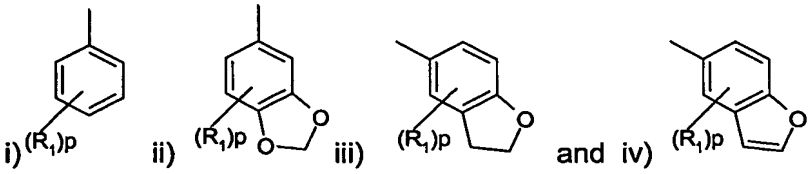
1. A compound of formula (I)



(I)

wherein

- ---- represents a single or a double bond;
- R represents a radical selected from:



i) ii) iii) and iv)

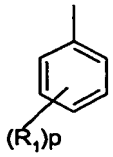
in which R_1 is halogen, cyano, C_{1-4} alkyl, C_{1-4} alkoxy, trifluoromethyl or trifluoromethoxy and p is zero or an integer from 1 to 3;

- R_2 represents hydrogen or C_{1-4} alkyl;
- R_3 represents hydrogen, hydroxy or C_{1-4} alkyl;
- R_4 represents hydrogen or R_4 together with R_3 represents =O or =CH2;
- R_5 represents phenyl, naphthyl, a 9 to 10 membered fused bicyclic heterocyclic group or a 5 or 6 membered heteroaryl group, wherein said groups are optionally substituted by 1 to 3 groups independently selected from trifluoromethyl, C_{1-4} alkyl, hydroxy, cyano, C_{1-4} alkoxy, trifluoromethoxy, halogen or S(O)qC$_{1-4}$ alkyl;
- R_6 and R_7 independently represent hydrogen, cyano, C_{1-4} alkyl;
- R_8 is $(CH_2)rR_{10}$;
- R_9 represents hydrogen, halogen, C_{3-7} cycloalkyl, hydroxy, nitro, cyano or C_{1-4} alkyl optionally substituted by one or two groups selected from halogen, cyano, hydroxy or C_{1-4} alkoxy;
- R_{10} represents hydrogen or C_{3-7} cycloalkyl;
- n represents 1 or 2;
- q is 0, 1 or 2;
- r is 0 or an integer from 1 to 4;

or a pharmaceutically acceptable salt or a solvate thereof.

2. A compound as claimed in claim 1 wherein n is 2.

3. A compound as claimed in claim 1 or claim 2 wherein R represents:



in which R_1 is halogen, C_{1-4} alkyl, cyano, C_{1-4} alkoxy, trifluoromethyl or trifluoromethoxy p is zero or an integer from 1 to 3.

4. A compound as claimed in any claims 1 to 3 wherein R_5 is phenyl or naphthyl optionally substituted by one or two groups selected from trifluoromethyl, cyano, C_{1-4} alkyl or halogen.

5. A compound as claimed in any claims 1 to 4 wherein R_8 is $(CH_2)rR_{10}$ in which R_{10} is hydrogen or C_{3-7} cycloalkyl (e.g cyclopropyl) and r is 0 or 1.

6. A compound as claimed in any claims 1 to 5, wherein R_9 is hydrogen or C_{1-4} alkyl optionally substituted by one or two groups selected from halogen.

7. A compound as claimed in any claims 1 to 6 wherein R is phenyl substituted by a fluorine, R_2, R_9 and R_4 are hydrogen, R_3 is hydrogen, hydroxy or methyl, or together with R_4 forms =O or $=CH_2$, R_6 and R_7 are independently hydrogen or methyl, R_5 is phenyl or naphthyl optionally substituted by one or two groups independently selected from cyano, methyl, chlorine, bromine or fluorine atom, R_8 is hydrogen, methyl or cyclopropylmethyl, and n is 2.

8 A compound as claimed in clam 1 which is

- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one;
- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one ;
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one (Chain Enantiomer 1);
- 1-[(1*S*)-1-(3-Chloro-1-naphthalenyl)ethyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one ;
- 1-[(3-Chloro-1-naphthalenyl)methyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one;
- 4-({3-[4-(4-Fluorophenyl)-4-piperidinyl]-2-oxo-2,5-dihydro-1*H*-pyrrol-1-yl}methyl)-2-naphthalenecarbonitrile;
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one (Chain Enantiomer 2);

- 1-[(1*R*)-1-(3-Chloro-1-naphthalenyl)ethyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one;
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one (Chain Enantiomer 1);
- 1-[(1*S*)-1-(3-Chloro-1-naphthalenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one ;
- 1-[(3-Chloro-1-naphthalenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one;
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one (Chain Enantiomer 2);
- 1-[(1*R*)-1-(3-Chloro-1-naphthalenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one;
- 4-({3-[4-(4-Fluorophenyl)-1-methyl-4-piperidinyl]-2-oxo-2,5-dihydro-1*H*-pyrrol-1-yl}methyl)-2-naphthalenecarbonitrile;
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one hydrochloride (Chain Enantiomer 1);
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one hydrochloride (Chain Enantiomer 1);
- 1-[(3-Chloro-1-naphthalenyl)methyl]-3-[1-(cyclopropylmethyl)-4-(4-fluorophenyl)-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one;
- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-2-pyrrolidinone
  1-[(1*S*)-1-(3-Chloro-1-naphthalenyl)ethyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-2-pyrrolidinone (Diastereoisomer 1);
- 1-[(1*S*)-1-(3-Chloro-1-naphthalenyl)ethyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-2-pyrrolidinone;
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-2-pyrrolidinone (Diastereoisomer 1 Chain Enantiomer 1);
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-2-pyrrolidinone (Diastereoisomer 2 Chain Enantiomer 1);
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-2-pyrrolidinone (Diastereoisomer 1 Chain Enantiomer 2);
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-4-piperidinyl]-2-pyrrolidinone (Diastereoisomer 2 Chain Enantiomer 2);
- 4-({3-[4-(4-Fluorophenyl)-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 1);
- 4-({3-[4-(4-Fluorophenyl)-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 2);
- 7-Fluoro-4-({3-[4-(4-fluorophenyl)-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 2);
- 6-Fluoro-4-({3-[4-(4-fluorophenyl)-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 2);
- 7-Fluoro-4-({3-[4-(4-fluorophenyl)-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 1);

- 6-Fluoro-4-({3-[4-(4-fluorophenyl)-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 1);
- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-pyrrolidinone;
- 1-[1-(3-Chloro-1-naphthalenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-pyrrolidinone (Diastereoisomer 2 Chain Enantiomer 1);
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-pyrrolidinone (Diastereoisomer 1 Chain Enantiomer 1);
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-pyrrolidinone (Diastereoisomer 2 Chain Enantiomer 1);
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-pyrrolidinone (Diastereoisomer 1 Chain Enantiomer 2);
- 1-[1-(3,5-Dichlorophenyl)ethyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-pyrrolidinone (Diastereoisomer 2 Chain Enantiomer 2);
- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-pyrrolidinone (Enantiomer 1);
- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-pyrrolidinone (Enantiomer 2);
- 4-({3-[4-(4-Fluorophenyl)-1-methyl-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 1);
- 4-({3-[4-(4-Fluorophenyl)-1-methyl-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 2);
- 7-Fluoro-4-({3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 2);
- 6-Fluoro-4-({3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile;
- 7-Fluoro-4-({3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 1);
- 6-Fluoro-4-({3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-2-oxo-1-pyrrolidinyl}methyl)-2-naphthalenecarbonitrile (Enantiomer 1);
- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1*H*-pyrrole-2,5-dione;
- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-5-methylidene-1,5-dihydro-2*H*-pyrrol-2-one;

or a phamaceutically acceptable salt (e.g hydrochloride, fumarate or citrate) or a solvate or amorphous or crystalline forms thereof.

9. A compound as claimed in claim 1 which is

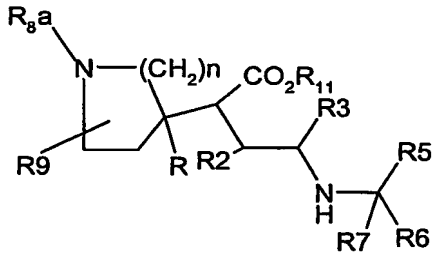
- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one;
- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one hydrochloride;

- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one fumarate;
- 1-[(3,5-Dichlorophenyl)methyl]-3-[4-(4-fluorophenyl)-1-methyl-4-piperidinyl]-1,5-dihydro-2*H*-pyrrol-2-one citrate;

or crystalline forms thereof.

10. A process for the preparation of a compound as claimed in claim 1 which process comprises:

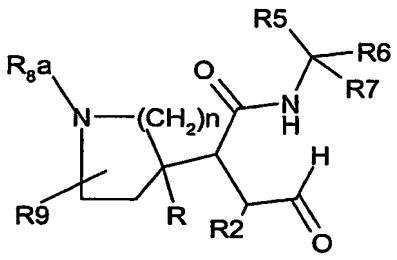
a) cyclisation of a compound of formula (IV), wherein R_{11} is C_{1-4} alkyl (e.g methyl



(IV)

or ethyl), R_3 is hydrogen or C_{1-4} alkyl, R_{8a} has the meaning defined in formula (I) or is a nitrogen protecting group and R, R_2, R_5, R_6, R_7,R_9 and n are as defined in claim 1, to yield a compound of formula(I), wherein —— is a single bond R_3 represents hydrogen or C_{1-4} alkyl and R_4 represents hydrogen, or

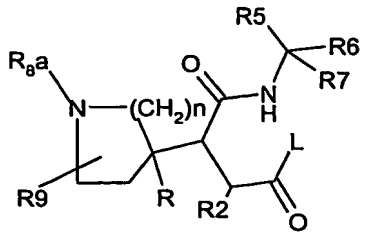
b) cyclisation of a compound of formula (VI), wherein R_{8a} has the



(VI)

meaning defined in formula (I) or is a nitrogen protecting group, R, R_2, R_5, R_6, R_7,R_9 and n are as defined in claim 1, to yield a compound of formula(I) wherein ----is a single bond, R_3 is hydroxy and R_4 is hydrogen, or

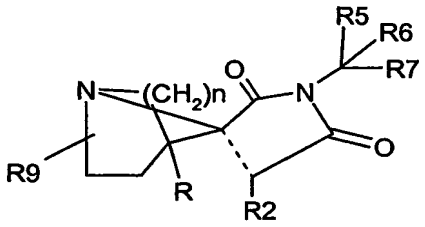
c) cyclisation of a compound of formula (VII), wherein R_{8a} has the meaning defined in formula (I) or is a nitrogen protecting group, L is a leaving group and R, R_2, R_5, R_6,R_7,R_9 and n are as defined in claim 1,



(VII)

to yield a compound of formula(I) wherein ---- is a single bond and R_3 together with R_4 represents =O, or

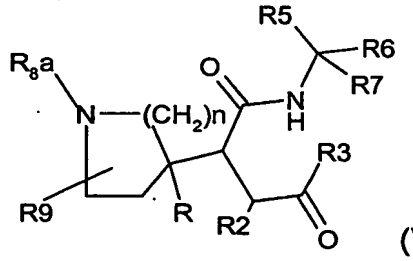
d) reaction of a compound of formula(VIIA), wherein R, R_2, R_5, R_6,R_7,R_9 and n are as defined in claim 1,



(VIIA)

with an aldehyde, $CH(O)(CH_2)_mR_{10}$ (VIIIa), wherein m is an integer from 0 to 3 and R_{10} is as defined in claim 1, to yield a compound of formula (I), wherein ---- is a single bond, R_8 represents $(CH_2)rR_{10}$, wherein r is an integer from 1 to 4 and R_3 together with R_4 represents =O, or

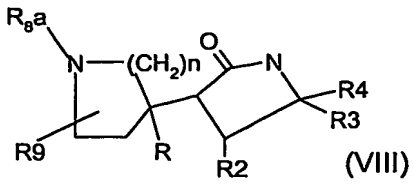
e) cyclisation in the presence of an acid of a compound of formula (VIa), wherein



(VIa)

R_3 is hydrogen, R_{8a} has the meaning defined in formula (I) or is a nitrogen protecting group, R, R_2, R_5, R_6, R_7,R_9 and n are as defined in claim 1, to yield compounds of formula (I), wherein ----is a double bond, R_3 represents hydrogen or C_{1-4} alkyl and R_4 is hydrogen; or

f) N-alkylation of a compound of formula (VIII), wherein R_{8a} has the meaning defined in formula (I) or is a nitrogen protecting group and R, R_2, R_3, R_4,R_9 and n are as defined in claim 1, with a compound of formula (IX)



(VIII) L-C(R_5)(R_6)(R_7) (IX)

in which L is a leaving group, R_5,R_6 and R_7 are as defined in claim 1, to yield a compound of formula(I) wherein ---is a single bond,

and thereafter optionally for any of steps (a) to (f):

- removing any protecting groups and/or
- converting a compound of formula (I) into another compound of formula (I) and/or
- separation of a compound of formula(I) or a derivative thereof into the enantiomers thereof
- forming a pharmaceutically acceptable salt.

11. A compound as claimed in any claims 1 to 9 for use in therapy.

12. The use of a compound as claimed in any claims 1 to 9 in the preparation of a medicament for use in the treatment of conditions mediated by tachykinins (including substance P and other neurokinins) and/or by selective inhibition of the serotonin reuptake transporter protein.

13. The use of a compound as claimed in any claims 1 to 9 in the treatment of conditions mediated by tachykinins (including substance P and other neurokinins) and/or by selective inhibition of the serotonin reuptake transporter protein.

14. A pharmaceutical composition comprising a compound as claimed in any claims 1 to 9 in admixture with one or more pharmaceutically acceptable carriers or excipients.

15. A method for the treatment of a mammal, including man, in particular in the treatment of conditions mediated by tachykinins, including substance P and other neurokinins and/or by selective inhibition of the serotonin reuptake transporter protein comprising administration of an effective amount of a compound of formula (I) as claimed in any claims 1 to 9.